

Work Order ID 61468

Page 1

Thursday, August 26, 2010 11:45:22 AM

Item ID: D212-664-201TRN

Accept



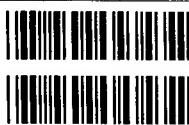
Setup Start



Revision ID:

Item Name: Crosstube Turning Detail

Stop



Start Date: 8/26/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 9/3/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan:



Date: 10-8-26

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D212-664-241	Rev D

100

0.00



MORI SEIKI CNC LATHE LARGE

Mori Seiki

Mori Seiki CNC Lathe Large

Memo

0.00

on 10/08/30

1 ✓



110

0.00



QC1- Inspect dimensions to dimension sheet

Memo

0.00

on 10/08/30

1 ✓



Quality Control

120

0.00



MORI SEIKI CNC LATHE LARGE

Mori Seiki

Mori Seiki CNC Lathe Large

Memo

0.00

on 10/08/30

1 ✓



- 1-Turn second side as per Folio FA114.
- 2- File transition lines smooth.
- 3-Remove sand and plugs
- 4- scribe batch # and part # as per dwg

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130



QC

Quality Control

QC1- Inspect dimensions to dimension sheet

0.00

ank 10/08/30

1 0

140



QC

Quality Control

QC8- Inspect parts - second check

0.00

S 10/08/30

XO

150



HandFXtube

Hand Finishing Crosstubes

Crosstubes Chemical Conversion

0.00

Memo

0.00

Chemical Conversion Coat as per within 24 hours of machining

MB 10-08-30

SAO

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Required Date: 9/3/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160



QC

Quality Control

QC3- Inspect Part Finish

0.00

170



Packaging

Packaging

0.00

Packaging

Memo

0.00

Identify and stock in kanban rack
Location: Crosstube cel

180



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

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Picklist Print

Thursday, August 26, 2010 11:45:46 AM

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1

Work Order ID: 61468



Parent Item: D212-664-201TRN



Parent Item Name: Crosstube Turning Detail

Start Date: 8/26/2010

Required Date: 9/3/2010

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 08-03-06 new issue DD verified by:ec
IPP Rev B 08.04.02 Removed polish EC verified DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6006-129 		Manufactured	No			120	Each	39.0000	1	1			

Crosstube Material

Location	Loc Qty	Loc Code
LG	39	
23970	2	
26550	14	
34690	11	
38338	12	

1 8/26/08/29

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NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	61468
Description: Crosstube Assembly (205/212 High Aft)	Part Number:	D212-664-241
Inspection Dwg: D212-664-241 Rev: D		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	0.200	+/-0.010	2.00	—	Vern	ML-7
	R0.063	+/-0.010	R.063	—	R-b	N/A
	2.990	+0.005/-0.000	2.992	—	Vern	AM-04
	5.237	+/-0.030	5.237	—	"	"
	2.600	+0.005/-0.000	2.603	—	"	"
	2.686	+0.005/-0.000	2.691	—	"	"
	2.770	+0.005/-0.000	2.775	—	"	"
	2.854	+0.005/-0.000	2.859	—	"	"
	2.938	+0.005/-0.000	2.943	—	"	"
	3.021	+0.005/-0.000	3.026	—	"	"
	3.133	+0.005/-0.000	3.138	—	"	"
	3.179	+0.005/-0.000	3.184	—	"	"
SIDE B	0.200	+/-0.010	.200	—	Vern	ML-7
	R0.063	+/-0.010	R.063	—	R-b	N/A
	2.990	+0.005/-0.000	2.991	—	Vern	AM-04
	5.237	+/-0.030	5.237	—	"	"
	2.600	+0.005/-0.000	2.603	—	"	"
	2.686	+0.005/-0.000	2.691	—	"	"
	2.770	+0.005/-0.000	2.775	—	"	"
	2.854	+0.005/-0.000	2.859	—	"	"
	2.938	+0.005/-0.000	2.943	—	"	"
	3.021	+0.005/-0.000	3.025	—	"	"
	3.133	+0.005/-0.000	3.138	—	"	"
	3.179	+0.005/-0.000	3.184	—	"	"
	124.362	+/-0.020	124.362	—	M-tape	AM-01

Measured by:	<i>DK</i>	Audited by:	<i>S</i>	Preliminary Approval:	N/A
Date:	10/08/00	Date:	10/08/00	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	05.04.27	New Issue (P/O D412-664-201)	KJ/JLM	
B	06.03.09	Tolerance for 5.237 was +/-0.001	KJ/JLM	
C	07.05.08	Dwg Rev. updated	KJ/JLM	
D	10.08.03	Dimension 124.362 was 124.36	KJ <i>DK</i>	<i>M</i>

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8 7 6 5 4 3 2 1



Item	Qty -241	Qty -241B	Part Number	Description
1	X		D212-664-241	CROSSTUBE ASSEMBLY (205/212 HIGH AFT)
2		X	D212-664-241B	CROSSTUBE ASSEMBLY (214 HIGH AFT)
3	1	1	D6006-129	CROSSTUBE
4	2	2	D2940-1	SUPPORT
5	4	4	D3595-063-530	RUBBER CUSHION
6	4	4	MS21920-28	CLAMP (OR MS21920-30)
7	A/R	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6006-129
FINISHED LENGTH = 124.362±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D212-664-XXX" AND BATCH NUMBER ON INSIDE OF CUFF
USING VIBRATING STYLUS.
- 7) WEIGHT: D212-664-241 = 44.2 lbs (PER IIN-D212-664)
D212-664-241B = 44.2 lbs (PER IIN-D212-664)
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 5 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING
IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2940-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE
OF D2940-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS
AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-28 CLAMPS (OR -30) WITH D3595-063-530 RUBBER CUSHIONS TO SECURE THE D2940-1
SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE OF CROSSTUBE
SUPPORT.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE
SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR
DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND
MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT
HAS NOT BOTTOMED-OUT AFTER TORQUING.

SH-1
P-1
UNCO
SUBJECT TO APPROVAL
NO CANCELLATION
NO RELEASER
08/10/04/24

RELEASED
2009-10-29
M

D	REFORMAT/REVISE GENERAL NOTES/PART LIST; REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS; ADD -241B (ZN D4-2, B4-2); REMOVED REF & ADD TOLERANCES (ZN D8-3 & C4-3, C6-3 & A8-3); RELOCATED FLAG #6 PER PAR 08-046 (ZN A5-3); MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4	RF	09.09.30
C	REMOVE -1009 ABRASION STRIP; ADD MAGNOBOND 6398, CUSHION, REVERSE CLAMPS	PH	07.03.08
B	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	PH	05.02.04
A	NEW ISSUE	PH	00.12.12

REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF	REV. D	
CHECKED	PH	DRAWING NO. D212-664-241	
MFG. APPR.	DS	SHEET 1 OF 4	
APPROVED	PH	TITLE CROSSTUBE ASS'Y (205/212 HI AFT) NTS	
DE APPR.	PH	SCALE	
DATE	09.09.30	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1

3 2 1

1

A

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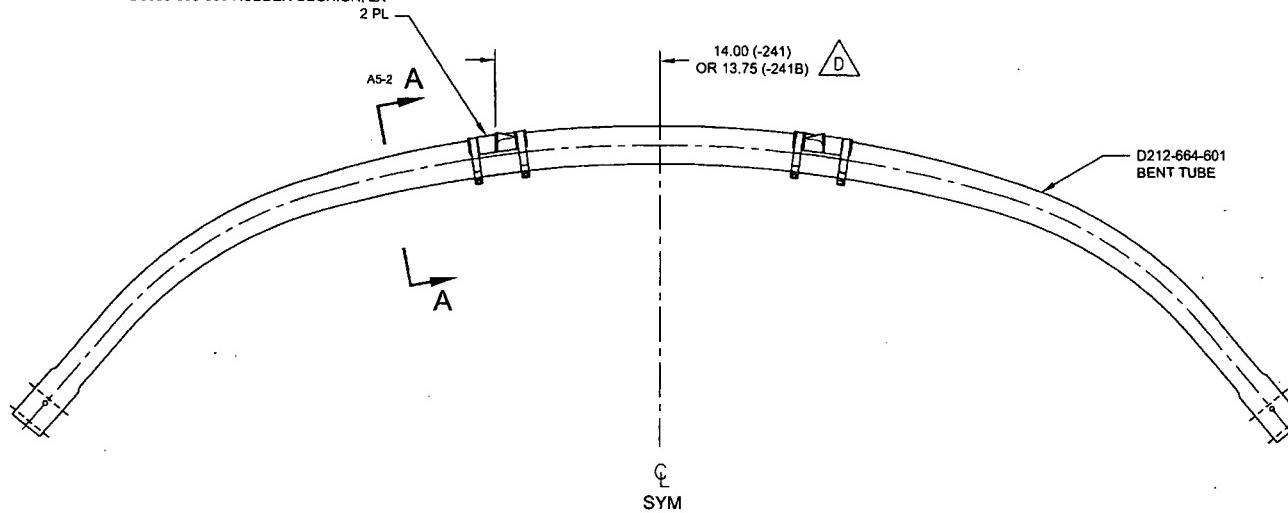
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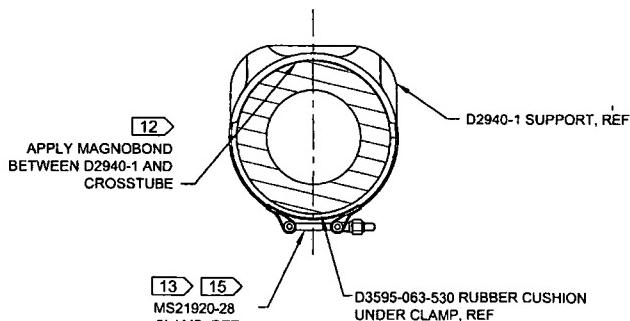
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[12] [13] [15]
 D2940-1 SUPPORT
 MS21920-28 CLAMP, 2X
 D3595-063-530 RUBBER CUSHION, 2X



D212-664-241/-241B
ASSEMBLY DETAIL



SECTION A-A D6-2
 SCALE 4X

RELEASED
 2009-10-28
MW

DESIGN	<i>PH</i>	DART AEROSPACE LTD
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>PP</i>	REV. D
MFG. APPR.	<i>DS</i>	DRAWING NO. D212-664-241
APPROVED	<i>ND</i>	SHEET 2 OF 4
DE APPR.	<i>PH</i>	TITLE CROSSTUBE ASS'Y (205/212 HI AFT) NTS
DATE	09.09.30	SCALE 4X

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8 7 6 5 4 3 2 1

D

D

C

C

B

B

A

A

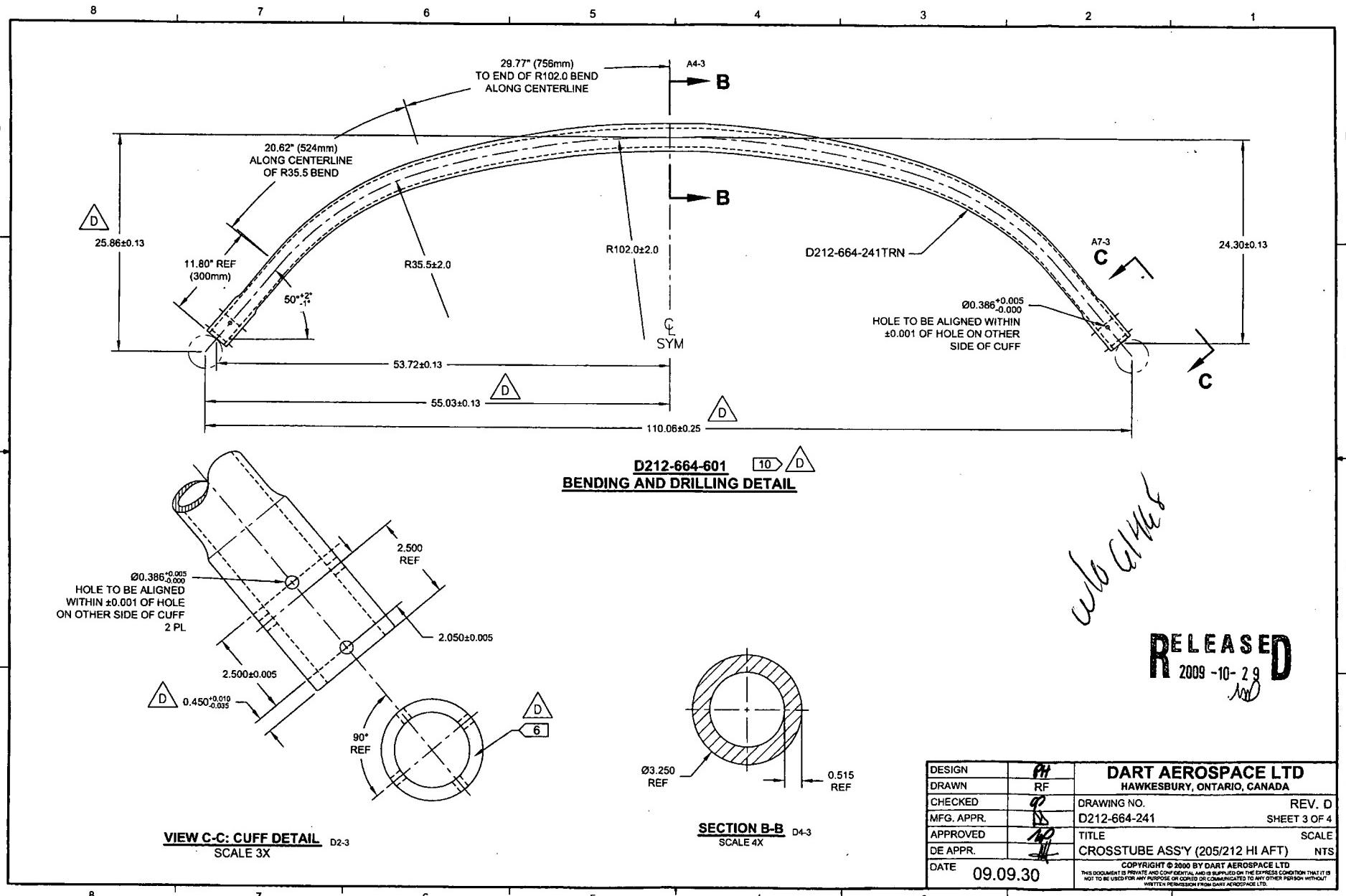
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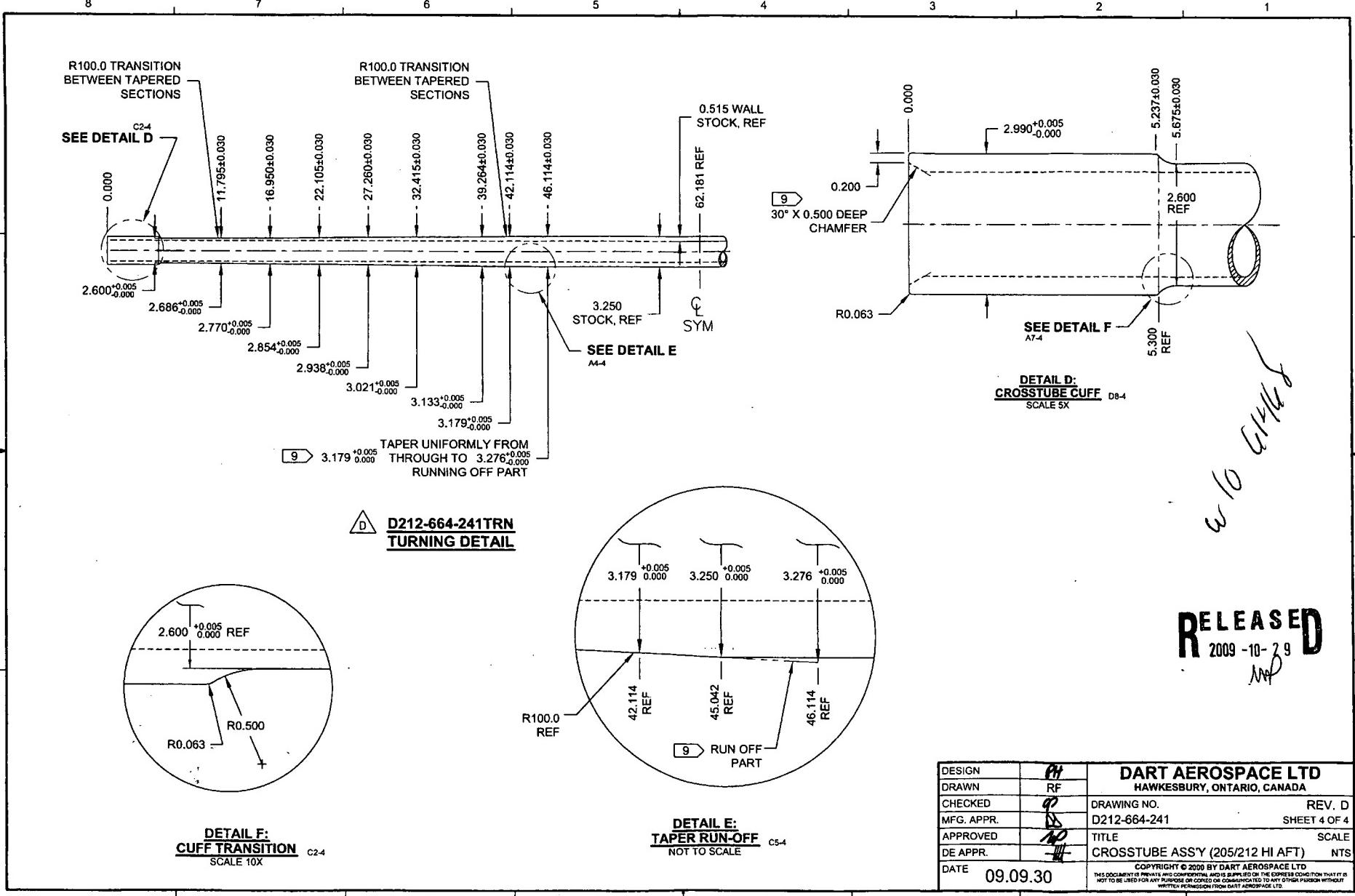
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